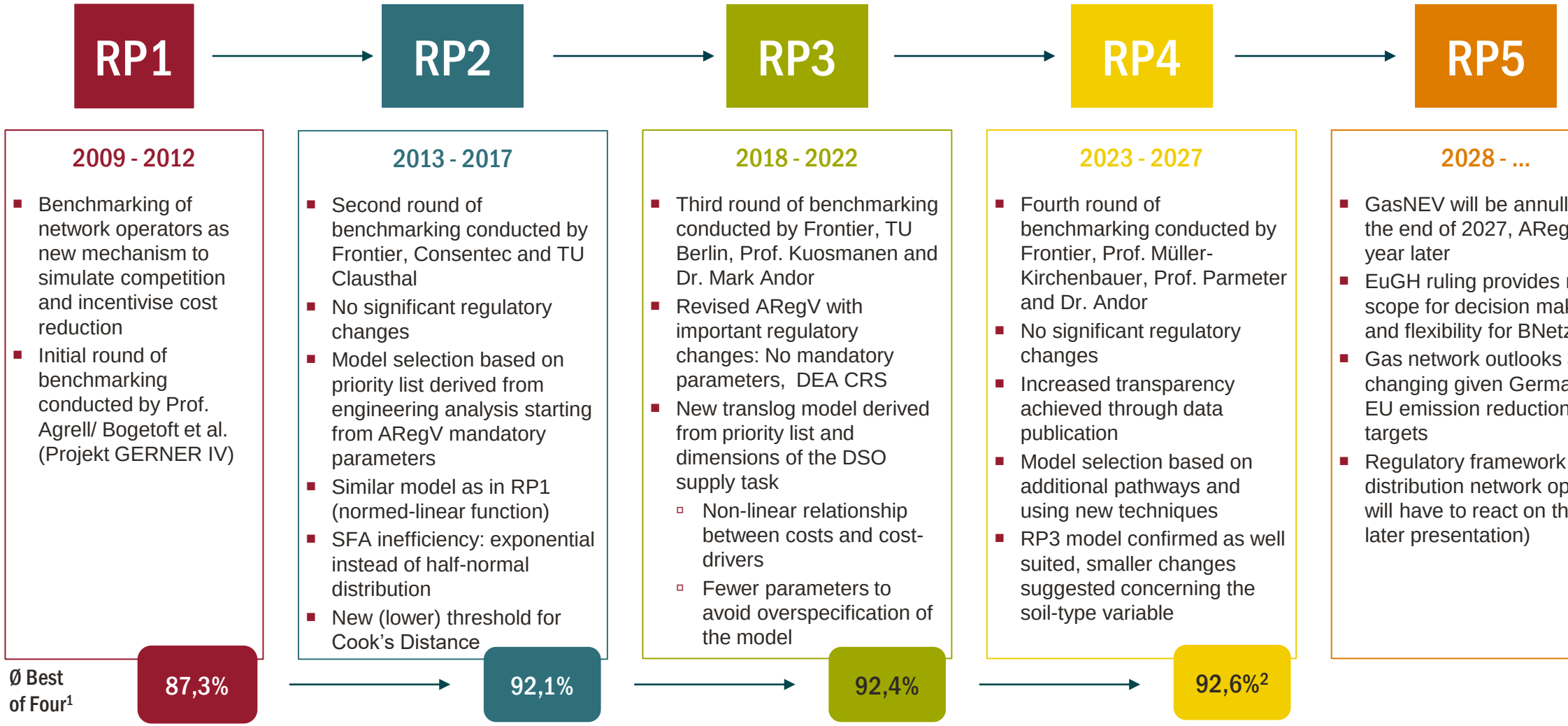
Benchmarking of gas distribution system operators - experiences and lessons learned

BNetzA conference "efficiency benchmarking"

Bonn, 24th September 2024

Looking back at 4 rounds efficiency benchmarking of German gas DSOs



[1] *Best of Four efficiency as published in advisor's reports.*
[2] *Consultation Draft Report EVG4*

Stepwise process of benchmarking for gas DSOs: Experience and challenges

	Improvements over time	Remaining challenges
Data collection (costs and cost drivers)	▪ Improved process and increased data quality achieved through new data questionnaire	▪ Time consuming process around collection of cost data takes away time that could be better used for model specification ▪ Ex-post changes of cost or output data
Data validation	▪ Increased data validation efforts on the side of BNetzA and standardised validation processes by advisors improved quality of data	▪ No validation of cost data by advisor ▪ Cost data provided by different authorities could lead to varying quality of input data
Cost driver analysis and outlier detection	▪ Improved process of model selection that allows the consideration of “all sensible models” ▪ Using more a flexible non-linear functional form ▪ Testing of new methods like LASSO and MC Simulation	▪ (Still) restrictions by regulatory framework and interpretation of framework ▪ Defining and capturing exogenous cost-drivers (like supply area)
Efficiency estimation and plausibility checks	▪ Standardised and tested methodologies and techniques are being employed ▪ Moving from half-normal to exponential distribution of SFA inefficiency	▪ SFA: Identification inefficiency with sufficient level of statistical significance not possible for all models
Consultation	▪ High level of transparency achieved through data publication ▪ Strong involvement of the industry in consultation process, generally improves overall quality of benchmarking process	▪ Increasing constructive feedback from industry (e.g. additional model suggestions and improvements), instead of too much focus on criticism of all possible elements to discredit overall process

Involvement of courts: Network operators without concession area (high pressure networks only)

The role of legal proceedings

- The ability to challenge regulatory processes is a fundamental pillar of our legal system
- Benchmarking results are frequently challenged in court, with claimants disputing every aspect, from data collection and model selection to efficiency estimation
- The existing processes and criteria for model selection have been upheld by both the Higher Regional Court (OLG) Düsseldorf and the Federal Court of Justice (BGH).
- However, recent rulings have overruled the treatment of network operators without concession area
- Appeal proceedings prolong and hold up the benchmarking process

RP2

- BGH rejected the definition of the cost driver “Supply Area” for those network operators without concession area;
  - These network operators had been identified as problematic by advisors early on due to their structure (no end-consumers, only high-pressure networks). Need to include these DSOs in sample confirmed by BNetzA.
  - In RP2, all DSOs without concession area had been identified as outlier
- The ruling also affected the benchmarking in RP3 as alternative definitions had to be developed and tested, process was paused and prolonged

RP3

- BGH rejected the result that not all network operators without concession area were identified as outlier (contrary to RP2) and set the efficiency frontier for DSOs with concession
  - Need to include all DSOs in sample again confirmed by BNetzA
  - Model selection results in model in which not all DSOs without concession area are identified as outlier
  - BGH rejected this result due to the incomparability between “regular” DSO and those without concession area
- This affects benchmarking in RP4 in which a similar model has been chosen process paused

Lessons learnt and way forward

Benchmarking process design

- Ensuring high data quality is maintained (Garbage-in-Garbage-out)
- Model specification is likely to become more complex, given the changing landscape of gas DSOs going forward.
- Process needs to allow for sufficient time for model specification using the final data on costs and outputs
- Industry input/feedback highly welcome: important to receive constructive inputs as early as possible

Changing landscape of gas DSOs

- Openness to evolutionary and/or revolutionary changes as the gas distribution sector is changing fundamentally within the next decade
- Evaluate applying additional benchmarking methodologies to DEA/SFA or instead of DEA/SFA
- Allow for more flexible treatment of sub-groups of DSO as heterogeneity of DSOs is likely to increase between regions with higher and lower repurposing / decommissioning activities

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